In the Claims

Please amend the claims as follows:

1. (Previously presented) A pharmaceutical composition for increasing concentrations of chemokines to reduce entry of HIV virus into mononuclear cells through binding of chemokine binding receptors, the composition comprising at least one G1 phase arresting compound in an amount sufficient to increase concentrations of extracellular β-chemokines.

2. (Previously presented) The pharmaceutical composition of claim 1, further comprising at least one antiviral agent.

3. (Previously presented) The pharmaceutical composition of claim 1, wherein the G1 phase arresting compound is a member selected from the group consisting of sodium butyrate, aphidicolin, hydroxyurea (HU), olomoucine, roscovitine, tocopherols, tocotrienols, and rapamycin (RAPA).

4. (Previously presented) The pharmaceutical composition of claim 2, wherein the antiviral agent is an HIV antiviral agent.

5. (Previously presented) The pharmaceutical composition of claim 4, wherein the HIV antiviral agent is a nucleoside RT inhibitor, CCR5 inhibitors/antagonist, viral entry inhibitor or functional equivalent thereof.

6. (Previously presented) The pharmaceutical composition of claim 2, wherein the antiviral agent is at least one member selected from the group consisting of: Zidovudine (ZDV, AZT), Lamivudine (3TC), Stavudine (d4T), Didanosine (ddI), Zalcitabine (ddC), Abacavir (ABC), Emirivine (FTC), Tenofovir (TDF), Delaviradine (DLV), Efavirenz (EFV), Nevirapine (NVP), Fuzeon (T-20), Saquinavir (SQV), Ritonavir (RTV), Indinavir (IDV), Nelfinavir (NFV), Amprenavir (APV), Lopinavir (LPV), Atazanavir, Combivir (ZDV/3TC), Kaletra (RTV/LPV), Trizivir (ZDV/3TC/ABC), SCH-C, SCH-D, PRO 140, TAK 779, TAK-220, RANTES analogs, AK602, UK-427, 857, monoclonal antibodies, NB-2, NB-64, T-649, T-1249, and functional analog thereof.

7. (Previously presented) The pharmaceutical composition of claim 4, wherein the compound is administered orally, rectally, nasally, topically, vaginally or parenterally.

8. (Previously presented) The pharmaceutical composition of claim 4, wherein the antiviral agent comprises tenofovir in combination with HU.

9. (Previously presented) The pharmaceutical composition of claim 4, wherein the antiviral agent comprises tenofovir, 3TC and Efavirenz in combination with HU.

10. (Previously presented) The pharmaceutical compositions of claim 2, wherein the composition is administered alone and in combination with the antiviral agent in a cyclic therapy program.

11. (Previously presented) A method for inducing increased levels of anti-HIV β-chemokines in activated lymphocytes, the method comprising:

administering a composition comprising at least one G1 phase arresting agent in an effective amount to increase levels of anti-HIV β-chemokines, wherein the increased levels of anti-HIV β-chemokines bind to β-chemokine receptors thereby reducing viral entry of HIV.

12. (Previously presented) The method according to claim 11, wherein the G1 phase arresting agent is a member selected from the group consisting of: sodium butyrate, aphidicolin, hydroxyurea (HU), olomoucine, roscovitine, tocopherols, tocotrienols, and rapamycin (RAPA).

13. (Previously presented) The method according to claim 11, further comprising at least one antiviral agent.

14. (Previously presented) The method according to claim 13, wherein the antiviral agent is an HIV antiviral agent.

15. (Previously presented) The method according to claim 14, wherein the HIV antiviral agent is a nucleoside RT inhibitor, CCR5 inhibitors/antagonist, viral entry inhibitor or functional equivalent thereof.

16. (Previously presented) The method according to claim 13, wherein the at least one antiviral agent is a member selected from the group consisting of: Zidovudine (ZDV, AZT), Lamivudine (3TC), Stavudine (d4T), Didanosine (ddI), Zalcitabine (ddC), Abacavir (ABC), Emirivine (FTC), Tenofovir (TDF), Delaviradine (DLV), Efavirenz (EFV), Nevirapine (NVP), Fuzeon (T-20), Saquinavir (SQV), Ritonavir (RTV), Indinavir (IDV), Nelfinavir (NFV), Amprenavir (APV), Lopinavir (LPV), Atazanavir, Combivir (ZDV/3TC), Kaletra (RTV/LPV), Trizivir (ZDV/3TC/ABC), SCH-C, SCH-D, PRO 140, TAK 779, TAK-220, RANTES analogs, AK602, UK-427, 857, monoclonal antibodies, NB-2, NB-64, T-649, T-1249, and functional analog thereof.

17. (Previously presented) The method according to claim 13, wherein the compound is administered orally, rectally, nasally, topically, vaginally or parenterally.

18. -19 (Cancelled).

20. (Currently amended) The method according to claim 1 ~~19~~, wherein the chemokine comprises MIP-1α, MIP-1β and RANTES.

21. -36 (Cancelled)

37. (Previously presented) A method of maintaining viral control of an HIV infection, the method comprising:

administering at least one antiviral agent in combination with at least one G1 phase arresting compound, wherein the G1 phase aresting compound is in a concentration sufficient to increase levels of β-chemokines.

38. (Previously presented)The method according to claim 37, wherein the at least one antiviral agent and the at least one G1 phase arresting compound are administered concurrently.

39. (Previously presented)The method according to claim 38, wherein the G1 phase arresting compound is a member selected from the group consisting of: sodium butyrate, aphidicolin, hydroxyurea (HU), olomoucine, roscovitine, tocopherols, tocotrienols, and rapamycin (RAPA).

40. (Previously presented)The method according to claim 39, wherein the antiviral agent is at least one member selected from the group consisting of: Zidovudine (ZDV, AZT), Lamivudine (3TC), Stavudine (d4T), Didanosine (ddI), Zalcitabine (ddC), Abacavir (ABC), Emirivine (FTC), Tenofovir (TDF), Delaviradine (DLV), Efavirenz (EFV), Nevirapine (NVP), Fuzeon (T-20), Saquinavir (SQV), Ritonavir (RTV), Indinavir (IDV), Nelfinavir (NFV), Amprenavir (APV), Lopinavir (LPV), Atazanavir, Combivir (ZDV/3TC), Kaletra (RTV/LPV), Trizivir (ZDV/3TC/ABC), SCH-C, SCH-D, PRO 140, TAK 779, TAK-220, RANTES analogs, AK602, UK-427, 857, monoclonal antibodies, NB-2, NB-64, T-649, T-1249, and functional analog thereof.

41. (Previously presented)The method according to claim 41, wherein the G1 phase arresting agent is HU.

42. (Previously presented)The method according to claim 41, wherein the G1 phase arresting agent is rapamycin.

43. (Previously presented)A therapeutically effective method to inhibit replication of HIV in a HIV infected subject, the method comprising:

a) administering at least one G1 phase arresting agent in a concentration sufficient to increase concentration of extracellular β-chemokines for a first predetermined time period; and

b) administering the G1 phase agent with at least one antiviral agent, for a second predetermined time period, wherein the first and second time periods are sequential in a cyclic schedule.

44. (Previously presented)The therapeutically effective method according to claim 43, wherein the G1 phase arresting agent is a member selected from the group consisting of: sodium butyrate, aphidicolin, hydroxyurea (HU), olomoucine, roscovitine, tocopherols, tocotrienols, and rapamycin (RAPA).

45. (Previously presented)The therapeutically effective method according to claim 43, wherein the antiviral agent is a nucleoside RT inhibitor, CCR5 inhibitors/antagonist, viral entry inhibitor or functional equivalent thereof.

46. (Previously presented)The therapeutically effective method according to claim 43, wherein the antiviral agent is at least one member selected from the group consisting of: Zidovudine (ZDV,

AZT), Lamivudine (3TC), Stavudine (d4T), Didanosine (ddI), Zalcitabine (ddC), Abacavir (ABC), Emirivine (FTC), Tenofovir (TDF), Delaviradine (DLV), Efavirenz (EFV), Nevirapine (NVP), Fuzeon (T-20), Saquinavir (SQV), Ritonavir (RTV), Indinavir (IDV), Nelfinavir (NFV), Amprenavir (APV), Lopinavir (LPV), Atazanavir, Combivir (ZDV/3TC), Kaletra (RTV/LPV), Trizivir (ZDV/3TC/ABC), SCH-C, SCH-D, PRO 140, TAK 779, TAK-220, RANTES analogs, AK602, UK-427, 857, monoclonal antibodies, NB-2, NB-64, T-649, T-1249, and functional analog thereof.

47. (Previously presented)The therapeutic method according to claim 43, wherein the cyclic schedule comprises:

a) administering a combination of at least one antiviral agent and at least one G1 phase arresting agent to the HIV infected subject for a predetermined first time period;

b) administering the at least one G1 phase arresting compound to the HIV infected subject for a second predetermined time period;

c) administering the combination of the antiviral agent and G1 phase arresting agent to the HIV infected subject for a predetermined third time period, which is less than the first period;

d) administering the G1 phase arresting compound to the HIV infected subject for a fourth predetermined time period which is less than the second time period; and

e) maintaining the cyclic schedule of steps c and d until replication of the HIV increases to a predetermined level.

48. -54. (Cancelled)

55. (New) The method according to claim 11, wherein the chemokine comprises MIP-1α, MIP-1β and RANTES.

56. (New) The method according to claim 11, wherein the chemokine receptor is CCR5.

57. (New) The method according to claim 37, wherein the chemokine comprises MIP-1α, MIP-1β and RANTES.

58. (New) The method according to claim 37, wherein the chemokine receptor is CCR5.

59. (New) The method according to claim 43, wherein the chemokine comprises MIP-1α, MIP-1β and RANTES.

60. (New) The method according to claim 43, wherein the chemokine receptor is CCR5.